No. 200300332

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pogue Agri Partners, Inc. and

Antonio Narro Autonomous Agrarian University

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC MAINTENANCE OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE LABELED BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BUFFELGRASS

'PS-711'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventh day of April, in the year two thousand and eight.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1 NAME OF OWNER: Pogue Agri Partners, Inc. and Antonio Narro Autonomous Agrarian University

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: H17, H1, PS711

3. VARIETY NAME: ~~PS-711~~ PER EMAIL 12/20/04 LWW AN-17-PS

4 ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
P. O. Drawer 389
Kenedy, TX 78119

5. TELEPHONE *(include area code)*: (830)583-3456

6. FAX *(include area code)*: (830)583-9843

FOR OFFICIAL USE ONLY

PVPO NUMBER: 200300332

FILING DATE: 09/03/2003 AAA

7 IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*: Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION: Texas

9. DATE OF INCORPORATION: 12/23/2002

10 NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

~~Gary E. Pogue~~
P. O. Drawer 389
Kenedy, TX 78119

RAP 2/20/2008

FILING AND EXAMINATION FEES: $ 365.00 DATE 09/03/2003

CERTIFICATION FEE: $ 768 — DATE 03/17/08

11 TELEPHONE *(include area code)*: (830)583-3456

12. FAX *(include area code)*: (830)583-9843

13. E-MAIL: pogueagri~~aol~~.com (pogueC)

14. CROP KIND *(Common Name)*: Buffelgrass

18 CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. [X] Exhibit A. Origin and Breeding History of the Variety
- b. [X] Exhibit B. Statement of Distinctness
- c. [X] Exhibit C. Objective Description of Variety
- d. [X] Exhibit D. Additional Description of the Variety *(Optional)*
- e. [X] Exhibit E. Statement of the Basis of the Owner's Ownership
- f. [X] Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
- g. [X] Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
[X] YES *(If "yes", answer items 20 and 21 below)* [ ] NO *(If "no," go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? [ ] YES [X] NO
IF YES, WHICH CLASSES? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS? [ ] YES [X] NO
IF YES, SPECIFY THE NUMBER 1, 2, 3, etc. [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
YES MARCH 18, 2003 PER EMAIL 12/20/04 LWW NO
X March
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
[ ] YES [X] NO
IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24 The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
Gary E Pogue	
NAME *(Please print or type)*: Gary E. Pogue	NAME *(Please print or type)*
CAPACITY OR TITLE: Partner	CAPACITY OR TITLE
DATE: July 10, 2003	DATE

1

***Cenchrus ciliaris* L.** PER EMAIL
~~AN-17-PS~~ PS-711 12/20/04 LALL

16A. Exhibit A.

AN-17-PS was selected from a group of hybrids evaluated for cold tolerance, disease resistance and forage production, from the ongoing joint buffelgrass breeding program between Pogue Agri Partners, InKenedy, TX and "Antonio Narro" Autonomous Agrarian University, in Saltillo, Coahuila, Mexico.

AN-17-PS is one of the tetraploid hybrids generated during the summer/fall of 1989 by crossing the sexual buffelgrass clone TAMCRDB1S (Bashaw, 1962) and the cold tolerant line Z-115 (Zaragoza 115), a cold tolerant selection of the buffelgrass breeding program at the Zaragoza, Coahuila Experimental Station of the National Institute of Agriculture, Forestry and Livestock Research (INIFAP) of the Mexican Department of Agriculture (SAGAR).

During the fall of 1989, hand emasculated and pollinated seed heads of TAMCRDB1S were harvested and threshed, yielding a total of 980 putative F1 kernels. In April of 1990, F1 seeds were planted in the greenhouse and later transplanted to the field in June of the same year, at the "M. Ramoz Ibarra" Experimental Station in Ocampo, Coahuila, of the "Antonio Narro" Autonomous Agrarian University.

Transplants were arranged in rows, with ten plants per plot at 1 meter between plants and 0.90 meters between rows. Every 10 rows, a check row of Common T-4464 was intercalated as check.

Pedigree ~~Visual~~ selection was performed on the transplants from July to October of 1990, identifying 500 out of the 980 plants as hybrids. Due to the vigor of the plants and lack of similarity to the progenitors, it was easy to identify the hybrids. The selection criteria included plant vigor, rhizome development, growth habit, seed head color and foliage color.

RAD 2/28/08

In November of the same year dry matter forage production was measured individually on each plant, selecting those hybrids where the yield was greater than or equal to the mean plus one standard deviation. Of 500 hybrids identified, only 108 were selected. Before harvest, seed was collected on each individual plant.

In this original observation nursery, leaf blight caused by *Pyricularia grisea* was observed on Common T-4464, where most of the hybrid plants were found resistant to the disease.

From the seed harvested on the individual plants in 1990, a progeny test was conducted to verify the type of reproduction and other agronomic characteristics. Seedlings were started in the greenhouse on April 21 1991 and transplanted at Ocampo Coahuila on June 18, 1991. A total of 15 plants per progeny were transplanted in the same arrangement as indicated previously and again, every 10 rows a check variety was included (alternating Z-115 and Common T-4464).

From the progeny test, 98 out of the 108 hybrids were found to have an apomictic reproduction (based on the uniformity of the progeny) where 10 remaining hybrids displayed variability in the progeny (an indication of sexuality).

In the fall of 1991 one forage clipping test was conducted and in 1992 two clipping tests were conducted, one at the end of the spring and one in the fall. The selection criteria in this case was to select those apomictic hybrids that would out-yield the mean of Z-115 by one standard deviation. Only eight hybrids were able to out-yield Z-115 mean plus one standard deviation but a total of 22 hybrids were selected since this was not a replicated trial. AN-17-PS was one the hybrids to out-yield Z-115.

Both during the 1991 and 1992 trials we were able to verify the resistance of the new hybrids to *Pyricularia grisea*.

During 1993 and 1994 the 22 selected hybrids and two checks were

evaluated in uniform forage clipping trials with three replications at the experimental stations in Ocampo, Coahuila and at Navidad, Nuevo Leon in Mexico. Six of those hybrids were able to out-yield the checks, the hybrids included ~~AN-17-PS~~ PS=71. At the same time a cold tolerance evaluation was performed at the Navidad, Nuevo Leon experimental station, located at 1900 meters above sea level where frosts occur in 130 of the 365 days of they year. Since the original establishment of the hybrids at the Navidad, Nuevo Leon experimental station in 1993, the hybrids, including AN-17-PS have been able to survive the prevalent frosts present at the location. The last surviving plants of Common T-4464 finally disappeared after the 98-99 winter where no loss of stand has been observed in the hybrid plots.

PER EMAIL 12/20/04 LMJ

In the spring of 1996 two nurseries with a group of 24 selected hybrids and checks were established at two locations (Cross Plains and Coyanosa, TX), to evaluate for cold tolerance (Rodriguez, 1998).

During 1996 and 1997, nurseries were established to evaluate the reaction of such hybrids and other check varieties for their reaction to buffelgrass blight caused by *Pyricularia grisea*, as well as for seed yield potential at two locations of south Texas, Lake Farm, Kenedy, TX. and Hindes Farm, Fowlerton, TX. (Rodriguez, 1998, Ocumpaugh and Rodriguez, 1998 and Rodriguez, 1999).

Again, AN-17-PS hybrid was selected among three other hybrids for its cold tolerance, disease resistance and seed quality characteristics. Semi-commercial increases of these three hybrids were initiated in the fall of 1997.

During the spring of 1998 two uniform forage trials were established at the Lake Farm, Kenedy, TX. and at the Texas Agricultural Experimental Station in Beeville, TX where two of the selected hybrids and several checks and experimental varieties were evaluated for forage production. AN-17-PS was able to outperform the check varieties, Common T-4464 and Nueces, as well as other Australian varieties.

In the spring of 1999 two forage clipping trials were established, one at "La Copita" Research Area of the Texas Agricultural Extension Service in Alice, TX and at the Lake Farm in Kenedy, TX. Hybrid AN-17-PS was included in the test with Common T-4464, Nueces and other Australian check varieties as well as other warm season perennial grasses. Again, AN-17-PS was able to outperform the check varieties and other warm season grasses in forage production and quality.

Disease observation nurseries have been also established at Rincon, Laredo and Beeville, TX.

AN-17-PS is a stable and uniform apomictic hybrid and has not shown any variants after six generations (16 nursery x year evaluations/observation nurseries) and in more than 160+ acres of semi-commercial production fields.

References:

Bashaw, E. C. 1962. Apomixis and sexuality in buffelgrass. Crop Science 2:412-415

Ocumpaugh, W. R. and O. Rodriguez, 1998. Pasture forage production: Integration of improved pasture species into south Texas livestock production systems. *in*: Proceedings, Management of Grazinglands in Northern Mexico and South Texas. Texas A&M International University, Laredo, TX

Rodriguez, O 1998. Breeding for cold tolerance and disease resistance in buffelgrass. in: Proceedings, American Forage and Grassland Council, Indianapolis, IN

Rodriguez, O. J. Gonzalez-Dominguez, J. P. Krausz, G. N. Odvody, J. P. Wilson, W. W. Hanna, and M. Levy. 1999.First report and epidemics of buffelgrass blight caused by Pyricularia grisea in south Texas. Plant Disease 83(4):398

Exhibit B - Statement of Distinctness

'PS-711' is most similar to 'T-4464' but can be distinguished by the following:

Characteristic	'PS-711'	vs	'T-4464'
Upper leaf sheath	Overlapping		Open
Leaf sheath surface	Glabrous		Pubescent
Bristles originating at	Base and subtending spikelets		Base only

Exhibit C

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Objective Description of Variety

Buffelgrass: PS-H1 (Cenchrus ciliaris L.)

Name of Applicant: Pogue Agri Partners, Inc.
Address: P. O. Drawer 389, Kenedy, TX 78119

Variety name or temporary designation: ~~AN-17-PS~~ PS-711 PER EMAIL 12/20/04 LMH

PVPO Number:_____
(For official use only)

1. Plant height: 134.93 cm — 95 % CI (137.99 - 141.45) — 128 % As a percentage of ~~Common T-4464~~ 'T-4464' PER EMAIL 4/21/05 LMH
(Longest shoot from soil surface to top of head)

2. Habit:

Stems	2	1 = Simple, 2 = Simple and branched from base and lower stem nodes.
Stems	1	1 = Coarse, 2 = Fine
Leaves	2	1 = Erect, 2 = Ascending

3. Rhizomes:

Rhizomes:	1	1 = Present, 2 = Absent
Length:	3	1 = Short (up to 10 cm), 2 = Medium (10 - 20 cm), 3 = Long(21 - 40 cm)
Thickness:	1	1 = (3 - 6 mm) 2 = (7 - 10 mm)
Coriaceous scales:	2	1 = Present, 2 = Absent

4. Leaf blade:

Surface:	2	1 = Flat, 2 = Convolvulate			
Color:	5GY / V4 / C4	According to Munsell Color Charts for Plant Tissues			
Width:	9.13	mm	95 % CI (9.03 - 9.23)	108	% As a percentage of Common T-4464
Length:	47.38	cm	95 % CI (46.70 - 48.06)	124	% As a percentage of Common T-4464
Upper surface:	1	1 = Scaberulose, 2 = Pubescent, 3 = Glabrous			
Lower surface:	1	1 = Scaberulose, 2 = Pubescent, 3 = Glabrous			
Leaf edge:	1	1 = Toothed, 2 = Smooth			

5. Leaf sheath:

Upper sheath:	2	1 = Open, 2 = Overlapping
Keel:	1	1 = Not keeled, 2 = Keeled
Seedling color (base):	2	1 = Green, 2 = Red
Surface:	1	1 = Glabrous, 2 = Pubescent, 3 = Scaberulose

6. Ligule

Membrane:	1	1 = Densely ciliate, 2 = Moderately ciliate, 3 = Glabrous
Hairs:	2	1 = Less than 1mm, 2 = More than 1mm

7. Stem nodes:

Nodes:	3	1 = Not apparent, 2 = Sightly swollen, 3 = Swollen
Hairs on nodes:	1	1 = Absent, 2 = Present
Length of node hairs:	na	1 = (1 - 2.5 mm), 2 = (3 - 4 mm)

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8. Inflorescence:

Tip of Peduncle:	1	1 = Glabrous or minutely pubescent, 2 = Hairy			
Rachis:	1	1 = Vilous or wooly, 2 = Glabrous			
Rachis:	1	1 = Ribbed or grooved vertically, 2 = Not ribbed, cylindrical			
Rachis:	2	1 = Straight, 2 = Flexous (Curved alternately)			
Rachis Length:	12.49	cm	95 % CI (12.35 - 12.64)	106	% As a percentage of ~~Gemmon T-4464~~ 'T-4464' PER EMAIL 4/21/05 LAH
Width:	1	1 = Less or equal to 1 mm, 2 = Greater than 1 mm			
Number of heads per plant:	208.02		95 % CI (197.79 - 218.24)	38	% As a percentage of Common T-4464
Number of involucres per head:	207.47		95 % CI (170.84 - 244.11)	123	% As a percentage of Common T-4464
Milligrams involucres per head:	440		95 % CI (440 - 450)	147	% As a percentage of Common T-4464
Milligrams caryopsis per head:	140		95 % CI (120 - 160)	140	% As a percentage of Common T-4464
Color at anthesis:	2	1 = White, 2 = Purple bristles and green glumes, 3 = Manila			
Color at maturity:	4	1 = White, 2 = Manila, 3 = Brown, 4 = Purplish			

9. Involucres or Fasicles:

Length to tip of longest bristle:	13.12	mm	95 % CI (12.93 - 13.31)	148	% As a percentage of Common T-4464
Width at base of involucre:	2.91	mm	95 % CI (2.84 - 2.97)	128	% As a percentage of Common T-4464
Width at top bristles:	8.98	mm	95 % CI (8.74 - 9.21)	98	% As a percentage of Common T-4464
Spikelets per fascicle:	1	1 = Usually (2 - 5), 2 = Single only			
Spikelets:	2	1 = Pedicelled (Pedicells 0.5 - 1mm), 2 = Sessile			
Pedicel of involucre:	1	1 = Hispid, 2 = Glabrous			
Pedicel of involucre:	2	1 = (1 - 1.5 mm), 2 = (0 - 0.8 mm)			
Bristles originating:	2	1 = At base only, 2 = At base and subtending spikelets			
Number of bristles:	51.68		95 % CI (50.85 - 52.51)	124	% As a percentage of Common T-4464
Length of shortest bristles:	3.71	mm	95 % CI (3.60 - 3.82)	111	% As a percentage of Common T-4464
Length of inner bristles:	7.05	mm	95 % CI (6.86 - 7.24)	107	% As a percentage of Common T-4464
Cilia on bristles:	2	1 = Lower 1/3, 2 = Lower ½, 3 = Lower 2/3			
Cilia length:	3	1 = Less than 1mm, 2 = (1 - 1.5mm), 3 = Greater than 2mm			
Cilia density:	3	1 = Light, 2 = Moderate, 3 = Dense			

10. Spikelets:

Spikelet length:	2	1 = Less than 4.5mm, 2 = (4.5 - 6mm), 3 = Greater than 6.5mm
Lower glume:	2	1 = 1/4 length of spikelet, 2 = 1/3 length of spikelet, 3 = ½ length of spikelet
Upper glume:	1	1 = ½ length of spikelet, 2 = 2/3 length of spikelet, 3 = 3/4 length of spikelet
Lemma (longest):	1	1 = Aristately acuminate (5 to 6 nerves, rarely 7), 2 = (5 nerved), 3 = (3 nerved)
Stigmas:	2	1 = Purple, 2 = White, 3 = Pink

11. Seed head:

Appearance at anthesis in mass: 1

1 = Purplish cast due to purple bristles (but not cilia), white stigmas, marginally green lemmas and glumes.
2 = Green to purplish cast due to purple bristles (but not cilia), white stigmas marginally green lemmas and glumes.
3 = As option 2 with white tips developing on most of the heads

Appearance at maturity: 1

1 = Purple cast due to purple bristles, purple lemas and glumes
2 = Manila cast with brown bristles

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12. Seed

Width:	1.05	mm	95 % CI (1.03 - 1.08)	114	% As a percentage of ~~Common T-4464~~ T-4464 WW 4/21/05 PER EMAIL
Length:	1.57	mm	95 % CI (1.54 - 1.59)	113	% As a percentage of Common T-4464
Grams per 1000 seeds:	0.82		95 % CI (0.68 - 0.96)	195	% As a percentage of Common T-4464
Seed shatter resistance:	2	1 = Poor, 2 = Good, 3 = Strong			

13. Environmental resistance:

Cold Injury:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Poor drainage:	1	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Drought:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Competitive species:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Poor fertility:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant

14. Plant crown and root strength:

Strength::	1	1 = Strong, 2 = Moderate, 3 = Weak

15. Resistance to Pyricularia grisea

Type of resistance:	1	1 = Resistant, 2 = Hypersensitive, 3 = Susceptible

16 D. Additional Description of the Variety.

Botanical Description of Buffelgrass *Cenchrus ciliaris* L.
Plant Variety Name ~~'AN-17-PS'~~ PS-711 PER EMAIL 12/20/04 LAM

AN-17-PS is a perennial apomictic tetraploid buffelgrass hybrid with erect stems 1.37 to 1.41 m tall, branched largely at basal nodes, with some secondary stems arising from the lower 3 to 4 nodes of a primary stem.

AN-17-PS presents creeping rhizomes 21 to 40 cm long and 3 to 6 mm thick, with no coriaceous scales. Leaf blades are 46.7 to 48 cm long and 9.03 to 9.23 mm wide, convolvulated, scaberulose, with toothed surface and a leaf color equivalent to 5GY/V4/C4 of the Munsell Color Charts for Plant Tissues. The leaf sheath is overlapping , non keeled and glabrous, compared to the pubescent type of Common. The ligule is densely ciliated with cilia more than 1 mm long. Stem nodes are swollen with no hairs.

Inflorescence are 12.45 to 12.64 cm long with minutely pubescent peduncle, a villous or woolly rachis, ribbed vertically and flexous. Seed heads present highly dense fascicles with 170 to 224 fascicles per head. Involucres per head weigh 440 to 450 mg and caryopsis per head weigh 120 to 160 mg. AN-17-PS has 197.79 to 218.24 heads per plant and at anthesis, have purple bristles with green glumes turning purple color at maturity.

Involucres are born in a hispid pedicel 0 to 0.8 mm long, enclosing two to five sessile spikelets 4.5 to 6.0 mm long. One bristle per involucre is usually longer measuring 12.93 to 13.31 mm long. The shortest bristles measure 3.6 to 3.82 mm long and the inner bristles measure 6.86 to 7.24 mm. Bristles originate at the base of the involucre and change from green to purple color as fascicles mature. Cilia on bristles are dense and greater than 2 mm long present only in the lower half of the bristle. The width at the base of the involucre is 2.84 to 2.97 mm wide and 8.74 to 9.21 mm wide at the tip of the bristles. Involucres develop from 50.85 to 52.51 bristles per involucre.

Spikelets are lanceolate 4.5 to 6.0 mm long with the lower glume extending one third of the length of the spikelet, the glume is aristalely acuminate with five to six nerves, rarely seven. The lower glume is one fourth the length of the spikelet. Caryopsis are turgid, ovoid 1.03 to 1.08 mm wide and 1.54 to 1.59 mm long. The weight of 1000 kernels is 0.68 tp 0.98 gr with a kernel to involucre ratio of 0.36 %.

The appearance of seed heads at anthesis, in mass, has a purplish cast due to purple bristles. Stigmas are white and lamas and glumes are marginally green. At maturity, seed heads have a purple cast due to purple bristles, purple lamas and glumes.

AN-17-PS has excellent cold tolerance. Evaluations in central and west Texas have demonstrated that AN-17-PS is able to tolerate constant temperatures of -12 to -17 C degrees for the past three years, without a significant loss of stand (Rodriguez, 1998). The cold tolerance of this new hybrid will allow the use of this new variety in zone 8 and in some regions of zone 7 of the USDA Plant Hardiness Zone Map. Before this, due to the susceptibility of buffelgrass to freezing conditions, buffelgrass use was limited to zone 9 of The USDA Plant Hardiness Map.

AN-17-PS is a very drought tolerant grass and develops well in areas with as low as 30 cm of annual precipitation. During severe drought conditions AN-17-PS is able to remain alive. The foliage dries but the stems remain green and succulent.

AN-17-PS is resistant to buffelgrass blight caused by the ascomycete fungus *Magnaporte grisea*, teleomorph *Pyricularia grisea*. When soil moisture starts to deplete, AN-17-PS remains green while Common buffelgrass plants wilt completely, apparently due to a release of a toxin by the fungus that grows systematically in the susceptible plants. This phenomenon has been documented in Pearl Millet.

Forage quality of AN-17-PS is superior in quality to the forage of

16 D. Additional description of the variety (Cont.)

Common, with an average of 14% crude protein and 60% Total Digestible Nutrients (TDN). In the absence of buffelgrass blight, Common would have forage quality values simmilar to the ones of AN-17-PS, the difference arises when Common buffelgrass plants are wilted by the buffelgrass blight, under marginal losses of soil moisture. Under such conditions, forage quality of AN-17-PS buffelgrass remains unchanged while Common buffelgrass forage quality drops to levels of 12 or 13% Crude Protein and 25 to 30% TDN.

Mean Comparison of Agronomic and Seed Quality Traits

PS-711 PER EMAIL 12/20/04 LMM

The morphology of ~~AN-17-PS~~ hybrid buffelgrass changes when environmental conditions change within a location and at different locations. The characteristics mostly affected are plant height, leaf length and leaf width, inflorescence length and number of heads per plant.

AN-17-PS hybrid buffelgrass, although similar to Common in appearance at anthesis, differs markedly in agronomic and seed quality traits. AN-17-PS is in average 28% taller (Table 1), has a darker chroma foliage color 5GY/V4/C4 *vs.* 5GY/V4/C6 of Common (Table 18), leafs are in average 8% wider and 24% longer (Tables 2 and 3), the rachis length is 6% longer (Table 4). AN-17-PS produces only 38% of the number of heads per plant that Common produces (Table 5) with 23% more involucres per head (Table 14), 47% heavier involucres per head (Table 16) and 40% heavier caryopsis per head compared to Common (Table 17).

Seed traits are also markedly different. AN-17-PS has 24% more bristles per involucre (Table 6), the shortest bristles are 11% longer (Table 7), the internal bristles are 7% longer (Table 8), the longest bristle of the involucre is 48% longer (Table 9), the involucre base is 28% wider (Table 10) but the width at the top of the involucres is the same as in Common (Table 11).

In kernel traits, the caryopsis of AN-17-PS are 14% wider and 13% longer (Tables 12 and 13) and the weight in grams of 1000 kernels is 95% heavier than Common (Table 15).

There are approximately 467,984 involucres per Kg of field run seed compared to 542,958 in Common. the caryopsis of AN-17-PS are brown and oval with a weight of 0.82 gr per 1000 kernels compared to 0.42 gr in Common and 1,219,512 kernels per Kg pf seed compared to 2,380,952 in Common. In general, the flower structures and the kernel traits are much smaller in Common, hence the larger amount of involucres and kernels per Kg of seed. Seed quality in Common is severely affected by buffelgrass blight since *Pyricularia grisea* is able to colonize the seed heads and damage the involucres and affect kernel development.

All these agronomic and seed quality traits are significantly different from the values observed in Common when compared using the *t* test. Before conducting the *t* tests, all the data was tested for normality using the Skewness/Kurtosis, the Shapiro-Wilk W and the Shapiro-Francia W test for normality (Stata Version 5). In all cases the data adjusted well to a normal distribution. Only in one case, bristle number, the data departures from a normal distribution by one percentage probability point. Given the large number of observations, it was decided to assume normality based on the central limit theorem.

Before conducting any *t* test, pair-wise variance comparisons were performed (*sdtest* Stata Version 5) in order to perform the *t* test using the even (E) or uneven (U) option of the *t* test accordingly with the results.

Resistance to buffelgrass blight caused by *Pyricularia grisea* has been stable for more than 15 location x year evaluations (Table 19), where not a single lesion has been observed on AN-17-PS, despite the aggressiveness and mutation capacity of the fungus.

16 D. Additional description of the variety (Cont.)

In forage production, ~~AN-17-PS~~ PS-711 PERENNIAL 12/2004 has been able to statistically out-yield Common both in fresh and dry matter weight production, in trials conducted during 1998 and 1999 (Tables 20 and 21). As indicated earlier, buffelgrass blight severely affects both forage and seed production of Common, while AN-17-PS is not affected.

In 1999 forage samples of AN-17-PS as well as other experimental varieties and grasses including Common, were taken from the forage trails conducted in the fall of that year. The samples were sent to be analyzed at a forage quality laboratory and the results are included in Table 21. As it can be seen, the Total Digestible Nutrients in Common are drastically reduced to 31% due to the presence of the disease (a TDN value of 31% is the equivalent to the nutritional value of wheat straw). The 31% of TDN in Common represents one half the TDN of AN-17-PS and hence, the Acid Detergent Fiber content of Common increases to 65% while in AN-17-PS is only 40%. Also, Net Energy value of Common is reduced to 0.29, one half the value of AN-17-PS. As a consequence of the effect of the disease on the forage quality of Common, the Digestible Dry Matter Yield of this grass 546 Lb/Ac (the digestible portion of what it is ingested by the animal) represents 24% of the amount of digestible dry matter forage produced by AN-17-PS which was 2217 Lb/Ac.

Mean Comparison of Agronomic and Seed Quality Traits

~~AN-17-PS~~ PS-711 vs. ~~Common T-4464~~ T-4464

PER EMAIL 12/20/04 LAW

PER EMAIL 4/21/05 LAW

Table 1. Mean Comparison for Plant Height, AN-17-PS vs. Common (n=150)

Variety	Mean	95 % CI	*t*	Prob.	Variance
Loc. I					
AN-17-PS	137.12	136.18 - 138.05	50.46	0.00	E
Common T-4464	102.83	101.87 - 103.78			
Loc. II					
AN-17-PS	162.50	161.44 - 163.58	35.08	0.00	U
Common T-4464	129.60	128.07 - 131.10			
Loc. III					
AN-17-PS	119.53	118.53 - 120.53	40.05	0.00	U
Common T-4464	94.13	93.37 - 94.88			

Table 2. Mean Comparison for Leaf Length, AN-17-PS vs. Common (n=150)

Variety	Mean	95 % CI	*t*	Prob.	Variance
Loc. I					
AN-17-PS	42.44	40.84 - 44.03	3.45	0.00	U
Common T-4464	38.73	37.33 - 40.13			
Loc. II					
AN-17-PS	47.82	47.44 - 48.20	28.97	0.00	U
Common T-4464	34.60	33.78 - 35.41			
Loc. III					
AN-17-PS	51.87	51.30 - 52.43	8.07	0.00	U
Common T-4464	41.38	38.87 - 43.88			

Table 3. Mean Comparison for Leaf Width, ~~AN-17-PS~~ PS-711 vs. ~~Common~~ 'T-4464' (n=150) PER EMAIL 4/21/05 LMM PER EMAIL 12/20/04 LMM

Variety	Mean	95 % CI	*t*	Prob.	Variance
Loc. I					
AN-17-PS	8.87	8.67 - 9.08	3.30	0.00	U
Common T-4464	8.42	8.24 - 8.59			
Loc. II					
AN-17-PS	9.69	9.557 - 9.82	26.26	0.00	U
Common T-4464	7.55	7.45 - 7.66			
Loc. III					
AN-17-PS	8.81	8.67 - 8.95	-2.39	0.01	U
Common T-4464	9.26	8.84 - 9.22			

Table 4. Mean Comparison for Rachis Length, AN-17-PS vs. Common (n=150)

Variety	Mean	95 % CI	*t*	Prob.	Variance
Loc. I					
AN-17-PS	13.92	13.73 - 14.10	6.52	0.00	U
Common T-4464	12.09	11.57 - 12.61			
Loc. II					
AN-17-PS	12.32	12.23 - 12.42	5.28	0.00	U
Common T-4464	11.38	11.04 - 11.72			
Loc. III					
AN-17-PS	11.23	11.02 - 11.43	-1.72	0.08	U
Common T-4464	11.82	11.17 - 12.47			

Table 5. Mean Comparison for Head Number per Plant, ~~AN-17-PS~~ PS-711 PER EMAIL 12/20/04 LWW vs. ~~Common~~ 'T-4464' PER EMAIL 4/21/05 LWW (n=150)

Variety	Mean	95 % CI	t	Prob.	Variance
Loc. I					
AN-17-PS	288.57	266.81 - 310.13	-14.63	0.00	U
Common T-4464	503.03	483.94 - 522.13			
Loc. II					
AN-17-PS	136.88	132.27 - 141.49	-41.82	0.00	U
Common T-4464	602.24	580.75 - 623.74			
Loc. III					
AN-17-PS	198.59	186.09 - 211.08	-26.89	0.00	U
Common T-4464	524.76	504.31 - 545.22			

Table 6. Mean Comparison for Number of Bristles per Involucre, AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	t	Prob.	Variance
AN-17-PS	51.67	50.84 - 52.50	14.29	0.00	U
Common T-4464	41.64	40.52 - 42.76			

Table 7. Mean Comparison of Small Bristle Size (mm), AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	t	Prob.	Variance
AN-17-PS	3.71	3.59 - 3.82	4.75	0.00	U
Common T-4464	3.35	3.25 - 3.45			

Table 8. Mean Comparison of Internal Bristle Size (mm), AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	t	Prob.	Variance
AN-17-PS	7.04	6.86 - 7.23	3.92	0.00	U
Common T-4464	6.58	6.43 - 6.72			

Table 9. Mean Comparison for Length to Tip of Longest Bristle (mm), ~~AN-17-PS~~ PS-711 PER EMAIL 12/20/04 CALL vs. Common (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	13.12	12.92 - 13.31	36.07	0.00	E
Common T-4464	8.88	8.71 - 9.05			

Table 10. Mean Comparison for Width at the Base of Involucre (mm), AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	2.90	2.84 - 2.97	10.67	0.00	U
Common T-4464	2.28	2.18 - 2.37			

Table 11. Mean Comparison for Width at the top of Bristles (mm), AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	8.97	8.70 - 9.21	-0.72	0.46	U
Common T-4464	9.11	8.81 - 9.42			

'T-4464' PER EMAIL 4/21/05 CALL

Table 12. Mean Comparison for Seed Length (mm), AN-17-PS vs. ~~Common~~ (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	1.56	1.54 - 1.59	9.17	0.00	U
Common T-4464	1.38	1.35 - 1.41			

Table 13. Mean Comparison for Seed Width (mm), AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	1.05	1.03 - 1.07	9.41	0.00	U
Common T-4464	0.91	0.91 - 0.93			

Table 14. Mean Comparison for Average Number of Involucres per head, ~~AN-17-PS~~ PS-711 PER EMAIL 12/20/04 LMM vs. Common (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	207.47	170.84 - 244.10	1.66	0.11	U
Common T-4464	168.31	129.72 - 206.90			

Table 15. Mean Comparison for Weight of 1000 kernels (gr), AN-17-PS vs. ~~Common~~ 'T-4464' PER EMAIL 4/21/05 LMM (n=10)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	0.81	0.67 - 0.95	3.96	0.00	U
Common T-4464	0.42	0.24 - 0.59			

Table 16. Mean Comparison for Involucre Weight per Head (mg), AN-17-PS vs. Common (n=300)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	440	440 - 450	25.40	0.00	E
Common T-4464	300	290 - 310			

Table 17. Mean Comparison for Weight of Kernels per Head (mg), AN-17-PS vs. Common (n=100)

Variety	Mean	95 % CI	*t*	Prob.	Variance
AN-17-PS	140	120 - 160	2.10	0.05	E
Common T-4464	100	70 - 130			

Table 18. Plant Color, according to "Munsell Color Chart for Plant Tissues".

Variety	Hue	Value	Chroma
AN-17-PS	5GY	4	4
Common T-4464	5GY	4	6

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Table 20. Fresh Weight and Dry Matter Weight of the Uniform Buffelgrass Forage Yield Trial Pogue Agri Partners, Inc, Lake Farm, Kenedy, TX and Texas A&M University, Texas Agricultural Experimental Station, Beeville, TX 1998 §

(Pyricularia grisea)

Variety	Fresh Weight Lb/ Ac	Tukey 0.05	Dry Matter	Tukey 0.05	Dry Matter as % of Common	Disease ‡ Reaction	Cold Tolerance
PS-560	27442	a	5708	a	203	R	No
PS-XPN	25,237	a	4909	a	175	R	No
PS-135	25,838	a	5408	a	193	R	No
~~**AN-17-PS**~~ PS-711 PER E-MAIL 12/30/04 LMW	24,636	a	5708	a	203	R	Yes
PS-OT2	25,838	a	5408	a	193	HS	Yes
Nueces	23,636	a	4507	b	161	HS	No
Molopo	18,327	b	3407	b	121	S	No
409704	16,722	b	3407	b	121	HS	Yes
~~**Common T-4464**~~ T-44641 PER EMAIL 4/21/05 LMW	14,421	b	2806	b	100	S	No
Gayndah	7012	b	1400	b	50	S	No
	LSD = 5618 lb	CV = 26.60	LSD = 1211 lb	CV = 25.41			

RAD 2/28/08

Yield difference = a and b are statistically different at the 95% probability level

‡ Disease reaction, R= Resistant, HS = Hypersensitive, S = Susceptible

Note: Data corresponds to one clipping in the fall of 1998

§ All entries not shown

20030322

RMD 2/28/08

(Pyricularia grisea)

Table 19. Stable disease resistance to buffelgrass blight in new experimental buffelgrass varieties and hybrids across locations and years in south Texas

Variety	Type	Buffelgrass Blight Reaction						
		Killam Ranch Webb Co. 97, 98 and 99	Lake Farm Karnes Co. 97, 98 and 99	Hinds Farm La Salle Co. 97, 98 and 99	TAMU-TAES Exp. Sta. Bee Co. 98 and 99	La Copita TAES 99	Rincon, TX Starr Co. 99	Webb Co. Ext. Office 99
PS EXP H-1 ~~(AN-17-PS)~~ PS-711 PER EMAIL 12/20/04	Hybrid	R	R	R	R	R	R	R
PS EXP V-1 (PS-493)	Variety	R	R	R	R	R	R	R
PS EXP V-3 (PS-135)	Variety	R	R	R	R	R	R	R
PS EXP V-5 (PS-XPN)	Variety	R	R	R	R	R	R	R
PS EXP V-9 (Common II)	Variety	R	R	R	R	R	R	R
~~Common~~ T-4464 PER EMAIL 4/21/05	Variety	S	S	S	S	S	S	S
409704	Variety	HS	HS	HS	HS	HS	HS	HS
Gayndah	Variety	S	S	S	S	S	S	S
Nueces	Hybrid	HS / S	HS / S	HS /S	HS / S	HS / S	HS / S	HS / S

R=Resistant
S=Susceptible
HS=Hyper Sensitive

"Most closely resembles" or "most similar" statement:
CENCHRUS CILIARIS L.
~~AN-17-PS~~ PS-711 PER EMAIL 12/20/04 LALJ
Exhibit B D
RMD 2/28/2008

'AN-17-PS' most closely resembles the ~~'Common' (T-4464)~~ 'T-4464' PER EMAIL 4/21/06 LALJ variety of buffelgrass but 'AN-17-PS' can be readily distinguished from 'Common T-4464' by the following:

'AN-17-PS' is in average 28% taller than 'Common T-4464' and develops rhizomes that are not found in 'Common T-4464'.

The Leaves of 'AN-17-PS' are 8% wider and 28% longer the those of 'Common T-4464'.

'AN-17-PS' resembles 'Common T-4464' at flowering but initiates anthesis two weeks later than 'Common T-4464' and produces only 38% of the number of seed heads that 'Common T-4464' produces. Flower heads have a rachis longer and more slender and produces 28% more involucres per head than 'Common T-4464'.

Plants of 'AN-17-PS' are visibly larger and more robust and consistently produces more forage than 'Common T-4464'.

'AN-17-PS' is a perennial, apomictic, tetraploid hybrid and exhibits much more cold tolerance than 'Common T-4464' which is a perennial, apomictic, tetroploid variety. 'AN-17-PS' has persisted for five years at Baird, Callahan County, Texas where 'Common T-4464' winter killed at this location during the first year. 'AN-17-PS' has persisted also at Kent, Culberson County, Texas, for the past two years, which is two hundred miles further north and west than 'Common T-4464' has been known to survive.

'AN-17-PS' is resistant to *pyricularia grisea,* commonly known as leaf blight, while 'Common T-4464' is severely affected by the infection of leaf blight. Forage quality is greatly affected and reduced by leaf blight.

EXHIBIT D

#200300332

Objective Description of Variety

Buffelgrass Common T-4464 (Cenchrus ciliaris L.)

Name of Applicant: Pogue Seed Co., Inc.
Address: P. O. Drawer 389, Kenedy, TX 78119

Variety name or temporary designation Common T-4464
Note: For reference use only

PVPO Number _____
(For official use only)

1. Plant height:	108.85	cm	95 % CI (107.31 - 110.39) (Longest shoot from soil surface to top of head)
2. Habit:			
Stems	2		1 = Simple, 2 = Simple and branched from base and lower stem nodes.
Stems	1		1 = Coarse, 2 = Fine
Leaves	2		1 = Erect, 2 = Ascending
3. Rhizomes:			
Rhizomes:	2		1 = Present, 2 = Absent
Length:	na		1 = Short (up to 10 cm), 2 = Medium (10 - 20 cm), 3 = Long(21 - 40 cm)
Thickness:	na		1 = (3 - 6 mm) 2 = (7 - 10 mm)
Coriaceous scales:	na		1 = Present, 2 = Absent
4. Leaf blade:			
Surface:	2		1 = Flat, 2 = Convolvulate
Color:	5GY / V4 / C6		According to Munsell Color Charts for Plant Tissues
Width:	8.41	mm	95 % CI (8.27 - 8.56)
Length:	38.24	cm	95 % CI (37.22 - 39.26)
Upper surface:	1		1 = Scaberulose, 2 = Pubescent, 3 = Glabrous
Lower surface:	1		1 = Scaberulose, 2 = Pubescent, 3 = Glabrous
Leaf edge:	1		1 = Toothed, 2 = Smooth
5. Leaf sheath:			
Upper sheath:	1		1 = Open, 2 = Overlapping
Keel:	1		1 = Not keeled, 2 = Keeled
Seedling color (base):	2		1 = Green, 2 = Red
Surface:	2		1 = Glabrous, 2 = Pubescent, 3 = Scaberulose
6. Ligule			
Membrane:	1		1 = Densely ciliate, 2 = Moderately ciliate, 3 = Glabrous
Hairs:	2		1 = Less than 1mm, 2 = More than 1mm
7. Stem nodes:			
Nodes:	3		1 = Not apparent, 2 = Sightly swollen, 3 = Swollen
Hairs on nodes:	1		1 = Absent, 2 = Present
Length of node hairs:	na		1 = (1 - 2.5 mm), 2 = (3 - 4 mm)

#200300332

8. Inflorescence:

Tip of Peduncle:	1	1 = Glabrous or minutely pubescent, 2 = Hairy
Rachis:	1	1 = Vilous or wooly, 2 = Glabrous
Rachis:	1	1 = Ribbed or grooved vertically, 2 = Not ribbed, cylindrical
Rachis:	2	1 = Straight, 2 = Flexous (Curved alternately)
Rachis Length:	11.73	cm 95 % CI (11.47 - 12.07)
Width:	1	1 = Less or equal to 1 mm, 2 = Greater than 1 mm
Number of heads per plant:	543.35	95 % CI (531.03 - 555.67)
Number of involucres per head:	168.32	95 % CI (129.73 - 206.91)
Milligrams involucres per head:	300	95 % CI (290 - 310)
Milligrams caryopsis per head:	100	95 % CI (70 - 130)
Color at anthesis:	2	1 = White, 2 = Purple bristles and green glumes, 3 = Manila
Color at maturity:	4	1 = White, 2 = Manila, 3 = Brown, 4 = Purplish

9. Involucres or Fasicles:

Length to tip of longest bristle:	8.89	mm 95 % CI (8.72 - 9.06)
Width at base of involucre:	2.28	mm 95 % CI (2.18 - 2.38)
Width at top bristles:	9.12	mm 95 % CI (8.81 - 9.42)
Spikelets per fascicle:	1	1 = Usually (2 - 5), 2 = Single only
Spikelets:	2	1 = Pedicelled (Pedicells 0.5 - 1mm), 2 = Sessile
Pedicel of involucre:	1	1 = Hispid, 2 = Glabrous
Pedicel of involucre:	1	1 = (1 - 1.5 mm), 2 = (0 - 0.8 mm)
Bristles originating:	1	1 = At base only, 2 = At base and subtending spikelets
Number of bristles:	41.65	95 % CI (40.53 - 42.76)
Length of shortest bristles:	3.35	mm 95 % CI (3.26 - 3.45)
Length of inner bristles:	6.58	mm 95 % CI (6.43 - 6.73)
Cilia on bristles:	3	1 = Lower 1/3, 2 = Lower ½, 3 = Lower 2/3
Cilia length:	2	1 = Less than 1mm, 2 = (1 - 1.5mm), 3 = Greater than 2mm
Cilia density:	3	1 = Light, 2 = Moderate, 3 = Dense

10. Spikelets:

Spikelet length:	2	1 = Less than 4.5mm, 2 = (4.5 - 6mm), 3 = Greater than 6.5mm
Lower glume:	2	1 = 1/4 length of spikelet, 2 = 1/3 length of spikelet, 3 = ½ length of spikelet
Upper glume:	2	1 = ½ length of spikelet, 2 = 2/3 length of spikelet, 3 = 3/4 length of spikelet
Lemma (longest):	1	1 = Arisyayely acuminate (6 rarely 7 nerved), 2 = (5 nerved), 3 = (3 nerved)
Stigmas:	2	1 = Purple, 2 = White, 3 = Pink

11. Seed head:

Appearance at anthesis in mass: 1

1 = Purplish cast due to purple bristles (but not cilia), white stigmas, marginally green lemmas and glumes.
2 = Green to purplish cast due to purple bristles (but not cilia), white stigmas marginally green lemmas and glumes.
3 = As option 2 with white tips developing on most of the heads

Appearance at maturity: 1

1 = Purple cast due to purple bristles, purple lemas and glumes
2 = Manila cast with brown bristles

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#2003003 32

12. Seed

Width:	0.92	mm	95 % CI (0.90 - 0.94)
Length:	1.39	mm	95 % CI (1.36 - 1.42)
Grams per 1000 seeds:	0.42		95 % CI (0.25 - 0.60)
Seed shatter resistance:	1	1 = Poor, 2 = Good, 3 = Strong	

13. Environmental resistance:

Cold Injury:	1	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Poor drainage:	1	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Drought:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Competitive species:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant
Poor fertility:	3	1 = Susceptible, 2 = Tolerant, 3 = Resistant

14. Plant crown and root strength:

Strength::	1	1 = Strong, 2 = Moderate, 3 = Weak

15. Resistance to Pyricularia grisea

Type of resistance:	3	1 = Resistant, 2 = Hypersensitive, 3 = Susceptible

16 D. Additional Description of the Variety (Cont.)

Four photographs are attached to this application. The photographs are labeled and the description follows.

Photo A. General appearance of ~~AN-17-PS~~ PS-711 PER EMAIL 12/20/04 LMM hybrid buffelgrass

Photo B-1. Contrasting differences between ~~Common T-4464~~ T-4464' PER EMAIL 4/21/05 LMM plants in the foreground and AN-17-PS hybrid buffelgrass in the background.

Photo B-2. Contrasting differences between Common T-4464 plants on the left and AN-17-PS hybrid buffelgrass on the right.

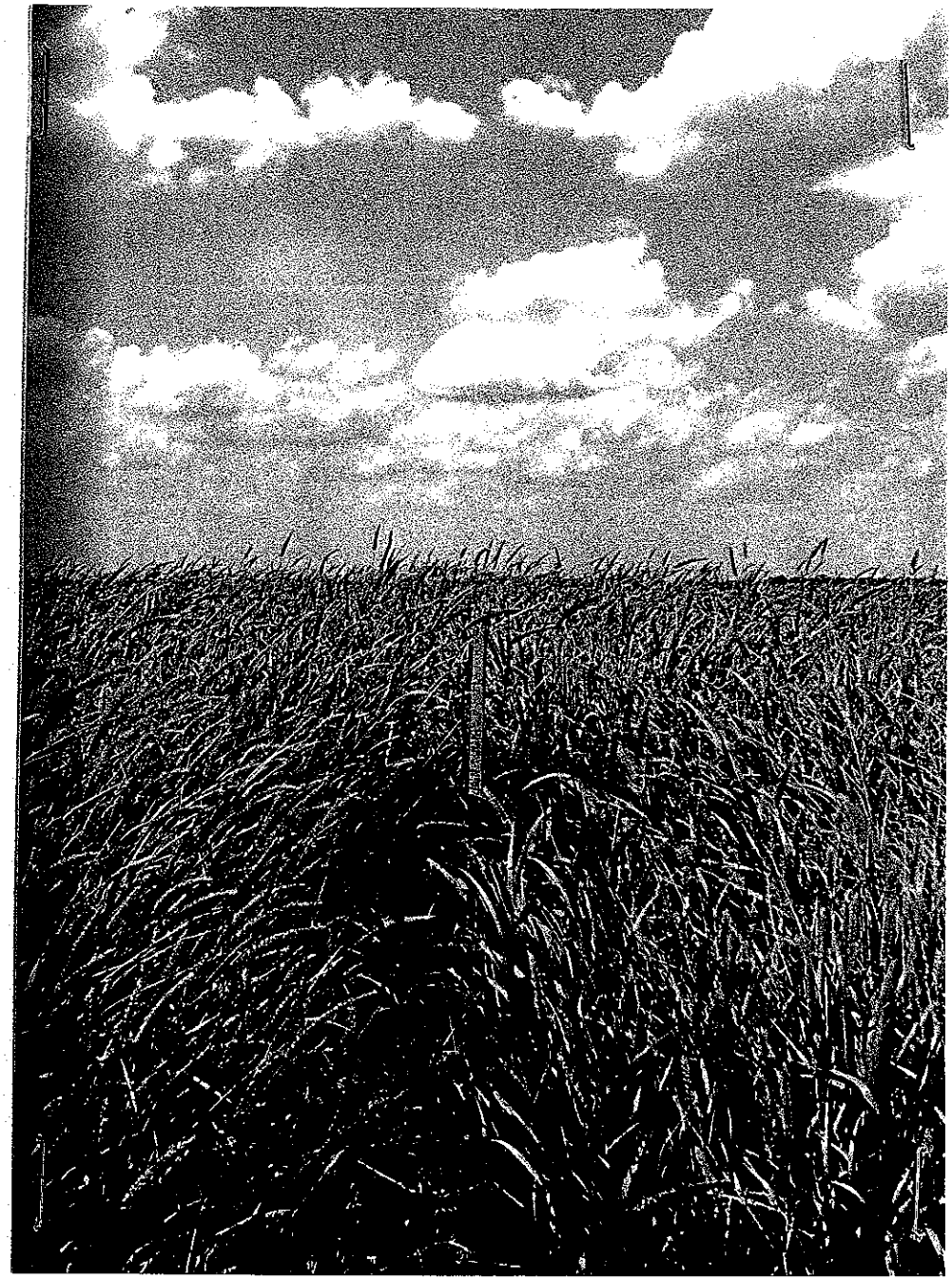
Photo C. General appearance of AN-17-PS hybrid buffelgrass seed heads, at anthesis (right) and at maturity (left).

Photo D. General view of devastating effect of buffelgrass blight caused by Pyricularia grisea on Common T-4464 buffelgrass. Note in the middle of the picture the presence of Kleingrass still green, while buffelgrass is already wilted by the blight. Before the presence of the blight, buffelgrass had a greater drought tolerance. AN-17-PS is resistant to the blight and will not wilt.

16 D. Additional description of the variety

Photo A

2003 00332



16 D. Additional description of the variety

20030032

Photo B-1

Photo B-2

16 D. Additional description of the variety

200300332

Photo C

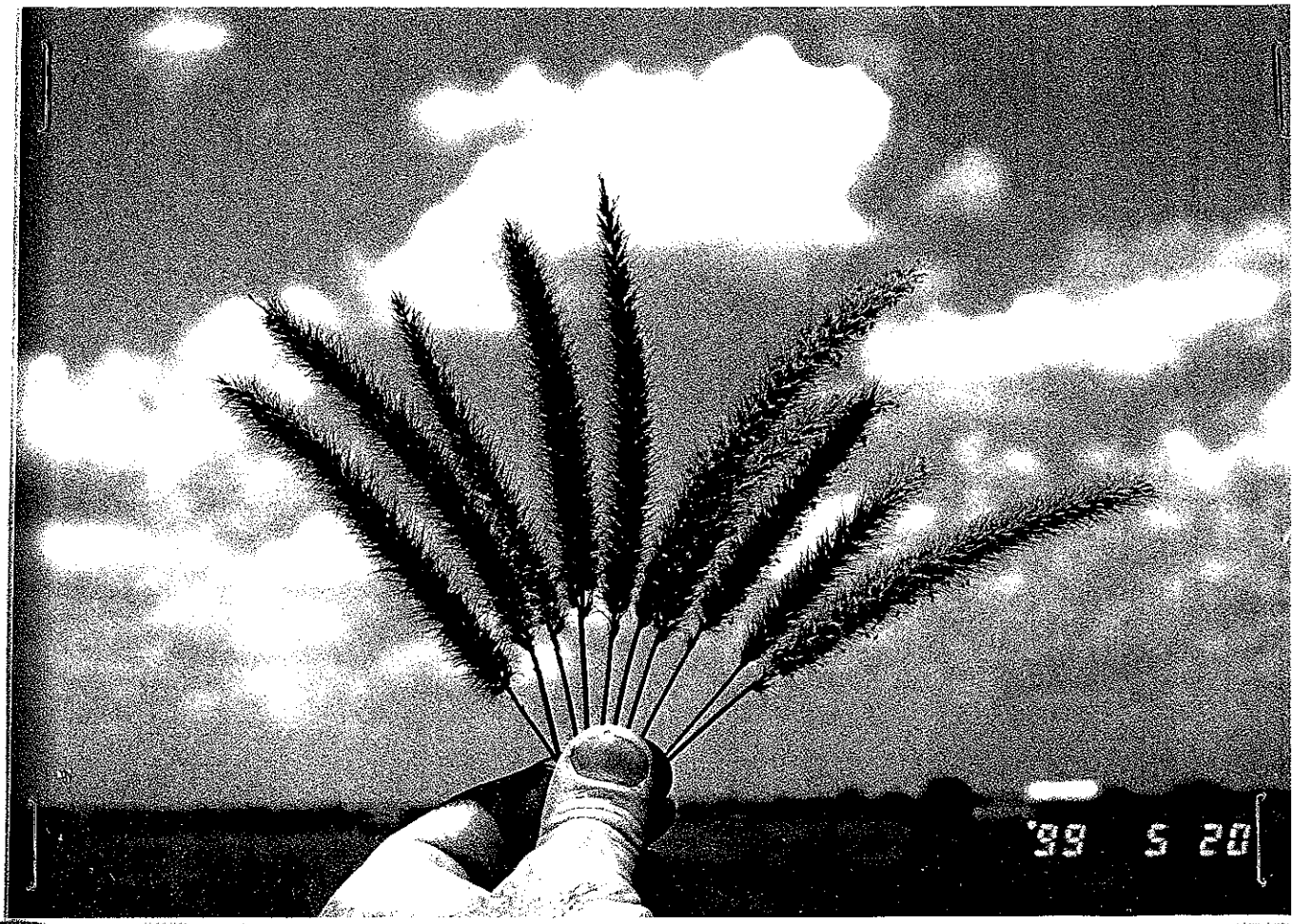


Photo D

#200300332

The following is the additional information requested for PV # 200300332

EXHIBIT E

Item # 11 Additional explanation on ownership

Variety is the product of joint research program between Pogue Agri Partners, Inc. of the United States and Antonio Narro Autonomous Agrarian University of Mexico. The Partnership agreement provides that Pogue Agri Partners, Inc. as the exclusive grower and marketer of the seed and Antonio Narro Autonomous Agrarian University to receive a royalty based on a percentage of all gross sales of the seed.

Sincerely,

Scott S Kalish
Pogue Agri Partners, Inc.

REPRODUCE LOCALLY. *Include form number and edition date on all reproductions.* FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)
Pogue Agri Partners, Inc. and
Antonio Narro Autonomous Agrarian University

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
H17
H1
PS711

3. VARIETY NAME
PS-711
~~AN-17-PS~~
PER EMAIL
12/20/04 WLL

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*
P. O. Drawer 389
Kenedy, TX 78119

5. TELEPHONE *(include area code)*
(830)583-3456

6. FAX *(include area code)*
(830)583-9843

7. PVPO NUMBER
200300332

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country

10. Is the applicant the original owner? [X] YES [ ] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?
[X] YES [ ] NO **If no, give name of country**

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?
[X] YES [ ] NO **If no, give name of country**

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:
Variety is the product of joint research program

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. **If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.**
2. **If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.**
3. **If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.**

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.